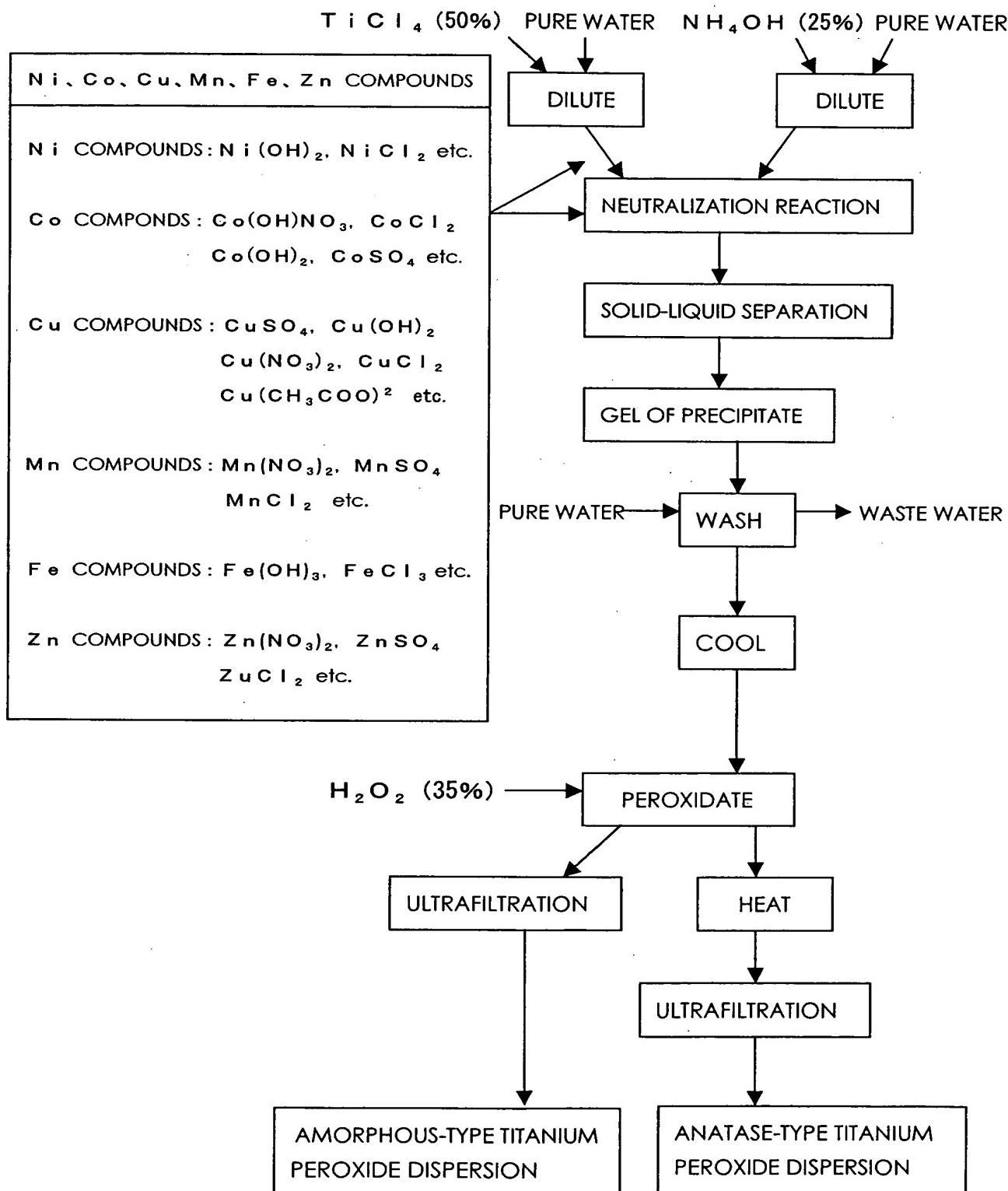


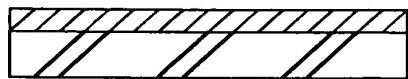
[FIG. 1]



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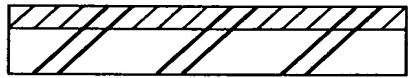
【FIG. 2】

A



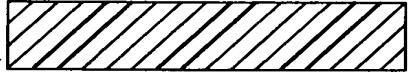
BUILD UP LAYER ON SUBSTRATE

B



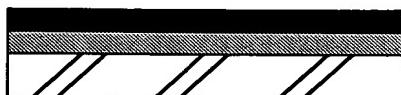
PERMEATE INTO SUBSTRATE SURFACE

C



MIX INTO SUBSTRATE

【FIG. 3】

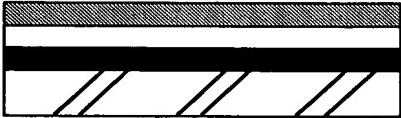
A

■ ORGANIC DYE/PIGMENT, OR ORGANIC POLYMER RESIN CONTAINING ORGANIC DYE/PIGMENT

■ COATING FILM CONTAINING AMORPHOUS-TYPE TITANIUM OXIDE DOPED WITH ONE OUT OF COMPOUNDS OF Mn, Cu, Ni, Fe AND Zn

B

□ COATING FILM CONTAINING AMORPHOUS-TYPE TITANIUM OXIDE DEPTED WITH COMPOUND OF Mn OR Cu (EXCEPT IN THE CASE OF A 2-LAYER COATING, A COMBINATION IN WHICH BOTH RE DOPED WITH THE SAME METAL COMPOUND IS NOT USED)

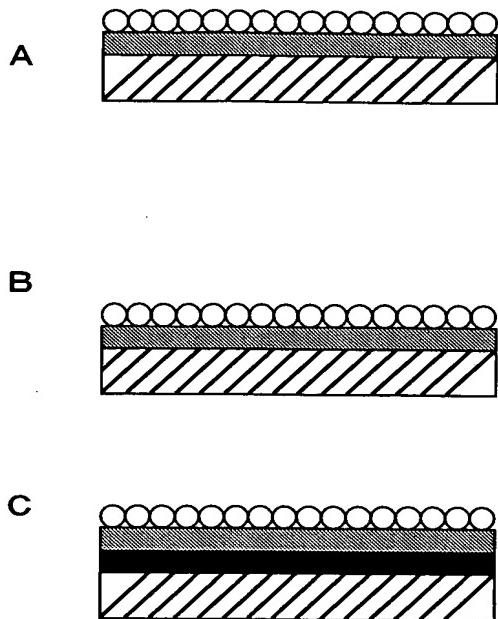
C

▨ COATING FILM CONTAINING MIXTURE OR AMORPHOUS-TYPE TITANIUM OXIDE DOPED WITH Mn COMPOUND AND AMORPHOUS-TYPE TITANIUM OXIDE DOPED WITH Cu COMPOUND

SUBSTRATE

D

【FIG. 4】



COATING FILM CONTAINING AMORPHOUS-TYPE TITANIUM OXIDE DOPED WITH ONE OUT OF COMPOUNDS OF Mn, Cu, Ni, Fe AND Zn



DYE/PIGMENT



ORGANIC SURFACE

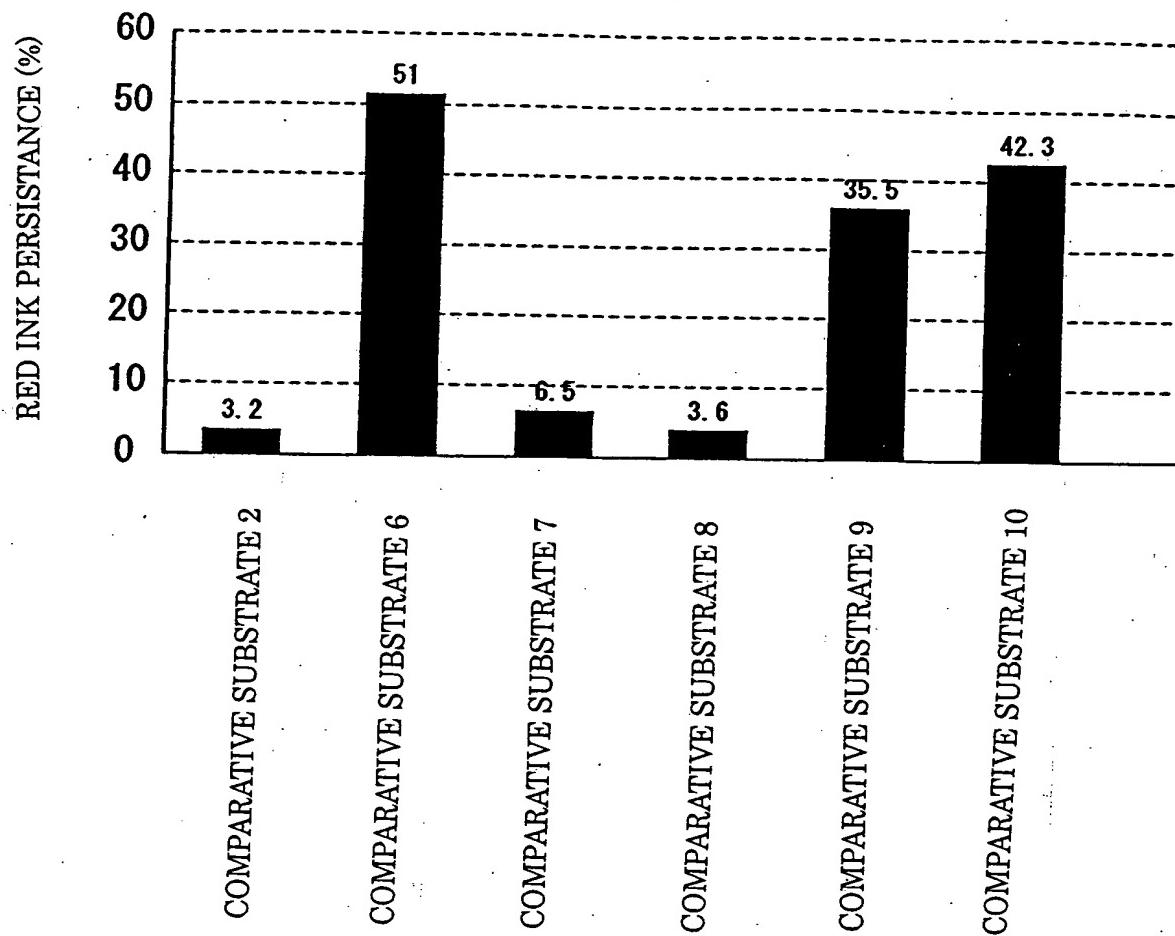


ANATASE-TYPE TITANIUM OXIDE, OR OTHER PHOTOCATALYTIC SEMICONDUCTOR METAL OXIDE

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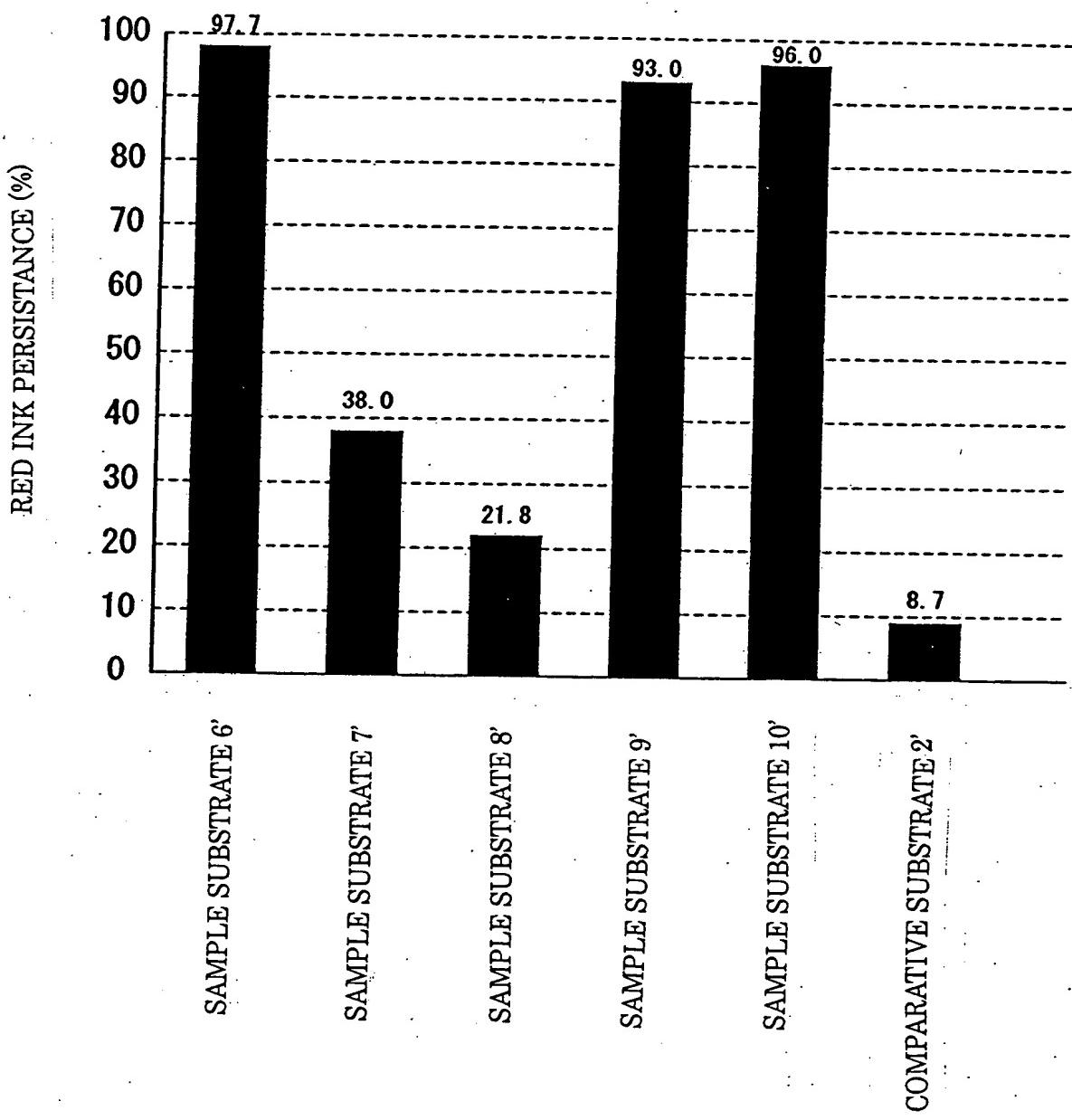
【FIG. 5】

AFTER 155 HOURS (7 DAYS) OF IRRADIATION WITH BLACK LIGHT



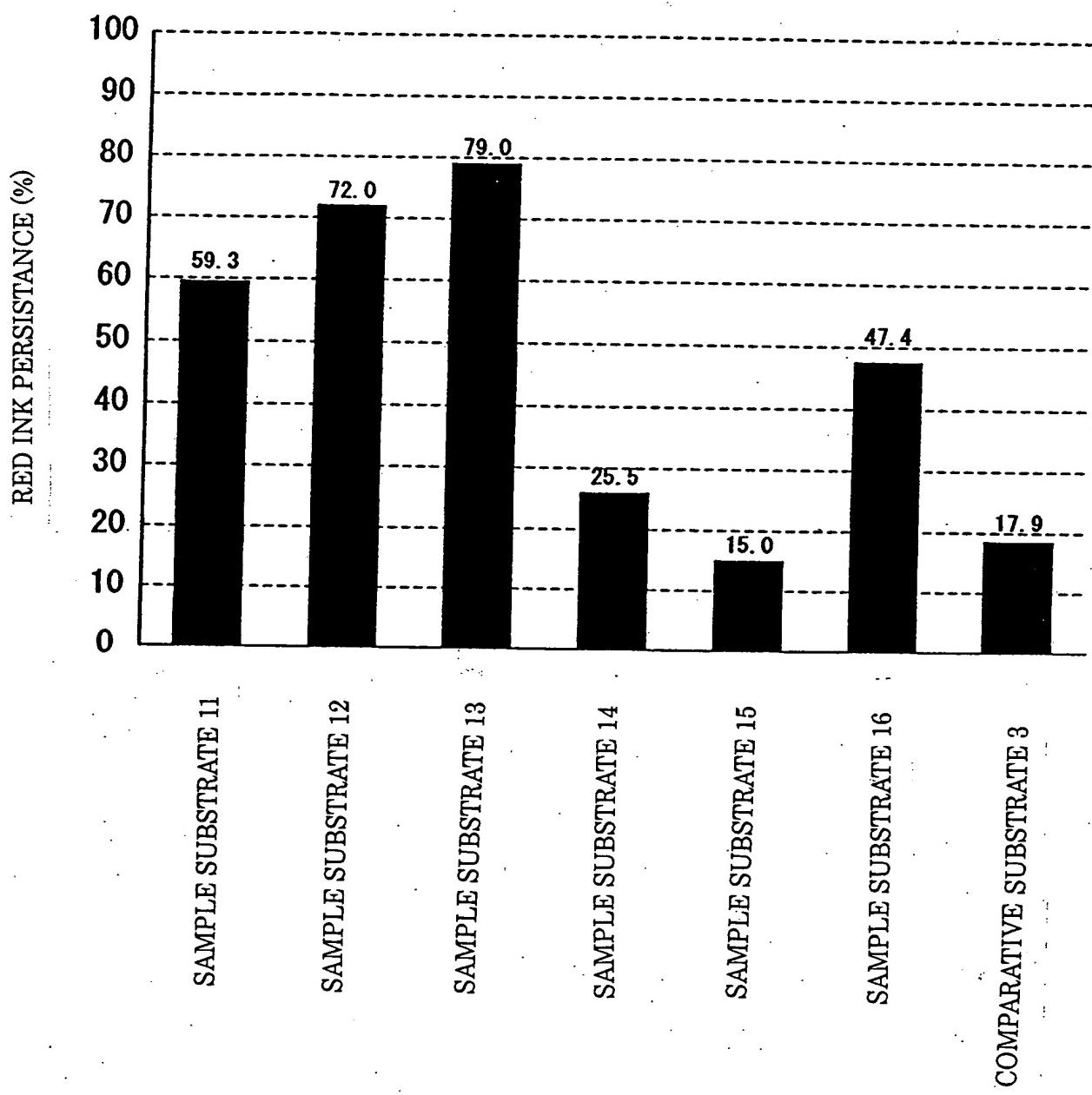
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【 FIG. 6 】



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【 FIG. 7】



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【FIG. 8】

